

TEXAS SOCIETY FOR MUSIC THEORY

PROCEEDINGS

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abstracts of presentations from annual meetings

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Texas Society for Music Theory

SEVENTH ANNUAL TSMT CONFERENCE

East Texas State University, Commerce
March 29 - 30, 1985

FRIDAY March 29

Registration (8:00-9:00)

Welcome and Announcements..... John Harris

OPENING ADDRESS, by Dr. Robert Blocker, Dean, School of Music, Baylor University

(Short Recess)

SESSION I (10:00-11:30).....Kathryn Hoppe, moderator

"Hindemith's Step Progression".....Glenda Collins

"Bartok's Adagio Molto, After Bach".....John Terrell

Luncheon

SESSION II (1:30-3:00).....Glenda Collins, moderator

"The Grundgestalt of Arnold Schoenberg: An Application
in the Third Mephisto Waltz of Franz Liszt".....Dennis Cranford

"The Logic of Richard Strauss' Tonality in Don Quixote:
Schoenberg's Grundgestalt Clarifies, Schenker's
Ursatz Obscures".....Graham Phipps

Coffee Break

SESSION III (3:30-5:00).....Herbert Colvin, moderator

"'Consonance' in Elliott Carter's
Symphony of Three Movements".....James Bennighof

"Twelve-Tone Polarity in Late Works of Luigi Dallapiccola".....David Mancini

SATURDAY March 30

SESSION IV (9:00-10:30).....Gene Cho, moderator

"Melodic Resolution: A Romantic Significance".....Joan Groom-Thornton

"Data Zones: Observing Structural Processes".....Thomas Clark

Coffee Break

SESSION V (11:00-ca.12:30).....Charles Joseph, presiding

ANNUAL TSMT BUSINESS MEETING

HINDEMITH'S STEP PROGRESSION: A STEP
TOWARD THE PERFORMANCE OF SONATE II
Glenda Collins

In Paul Hindemith's Unterweisung of 1939 he states his theoretical hypotheses regarding Degree Progression and Step-Progression. Careful scrutiny of the second movement of the Sonate II für Orgel, composed in 1937 reveals the application of his theories. A performer will discover that insight will be gained which will reveal the content of the music. A sense of direction, tension and relaxation of a line will not be the result of guesswork, but sound judgment based on Hindemith's style of composition. A good performance will be rewarded by becoming even better.

Hindemith attempted to restore order after a period of what he considered destructive explorations.¹ In the Unterweisung his new system of tonality concluded that "the real building units of melody are seconds".² For a performer "a step from a higher tone to a lower one is always felt as a relaxation of tension".³ A higher tone always requires more energy and effort on the part of the performer and resistance is diminished as the notes move downward.

The theory continues concerning melody having prominent tones and subordinate ones. Important tones stand out because they are high, low, or rhythmically prominent. The line that connects these important tones is called step-progression. This consists of a single succession of upward and downward steps of major and minor seconds. In a well constructed melody there may be several step-progressions going along at the same time. The tones which form a step-progression may directly succeed each other or may be widely separated. No feeling of tension is transmitted to the listener when high and low points occur mostly in close succession since that is what he expects to hear. When there is a need for intense expression, the attention of the listener is drawn by tones that may not belong to a step-progression.⁴ The music will be intelligible to the listeners when the principles of step-progression and degree-progression are followed.

A reduction of the score of the second movement has been prepared which shows the step-progression of the more important lines. Many more lines exist than those which are shown but they are only secondary. The form of this movement is a rondo--A¹ A² BABA Coda. The following key scheme is observed:

<u>A</u>	Measure	1-20	E
<u>B</u>	"	21-27	F
	"	27-31	A
<u>A</u>	"	32-38	E
<u>B</u>	"	39-44	F
	"	45-49	D
<u>A</u>	"	50-56	E
Coda	"	57-66	E

The rondo form is defined by the tonality. The recurrence of melodic material has a stabilizing effect. One may observe the repetition in measures 1, 11, 32, 36, 50, and 54. More tension is produced in A² by the higher tone of G in measure 35 than is produced by the tone of F-sharp in measure 4 and 14. The final statement of the A section reveals a mood of relaxation by replacing these tones with the tone of E in measure 54. Additional relaxation is provided by the abbreviated statement in the

bass which is in downward motion and utilizes a tone of C in measure 55. The coda concludes with only two tones which are prominent--E and F-sharp. These are observed in the original statement in measures 3-4, later in M.13-15, and lastly in M.34. It is also interesting to note that sharp accidentals are used almost exclusively in the **A** sections while flat accidentals prevail in the **B** sections.

A study such as this provides a keen interest in the control and order of Hindemith's compositional technique. In order to be faithful to his intentions, a performer should take care to be aware of his organization.

Footnotes

- 1 William W. Austin, Music in the 20th Century (New York: W. W. Norton, 1966), 396.
- 2 Paul Hindemith, The Craft of Musical Composition (London: Associated Music Publishers, 1937), Vol. I, 187.
- 3 Ibid., 188.
- 4 Ibid., 195.

Scores:

Paul Hindemith, Sonate II für Orgel, Mainz, B. Schott's Söhne, 1937.

II

A' Ruhig bewegt (d. bis so)
Oberwerk

Hauptwerk **A2**

A' **A''**

1 2 3 4 5 6 7 8 9 10 11

BARTÓK'S ADAGIO MOLTO, AFTER BACH
John W. Terrell

Béla Bartók's fifth string quartet was completed in September 1934 and chronologically lies among his most celebrated and most mature compositions. In this comparative analysis between the second movement (Adagio Molto) of the quartet and Fugue XVI in G-minor (WTC I) of J.S.Bach, it is revealed how Bartók paraphrased Bach's fugue in an effort to synthesize eastern and western melodic languages as each had influenced him in his earlier years.

The transformation of motivic cells from the fugue accounts for the melodic elements throughout the entire score of Bartók's Adagio. These transformations are largely achieved by slight changes of interval size or rhythmic patterns, and condensations of motives into mere pitch frameworks. The first part of the Bach fugue subject is first represented in mm.3-4 of the Adagio by the first violin.



The viola and 'cello represent the "answer" in mm.3-5 with expanded intervals (as in the fugue due to a tonal answer). In m.6 the second part of the fugue subject is represented as a succession of three two-note couplings. These stepwise couplings are a continuation of the subject begun in m.3.



The re-statement of the couplings in m.7 continues the "answer" of the subject begun in m.3 by the viola. Measures 8-9 present a pitch framework of a motivic cell from the fugue's countersubject.



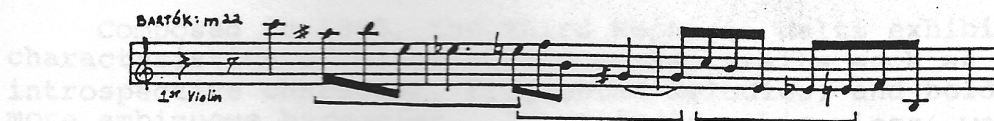
A motivic cell from m.7 of the fugue is represented in mm.9-10 in the Adagio by the second violin. This cell occurs at the end of the exposition of the fugue, and now occur at the closing of the first section of the Adagio.



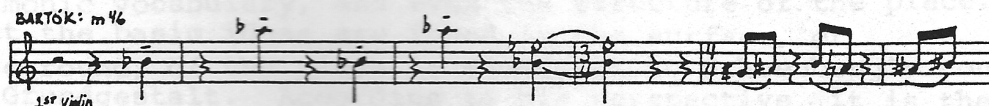
Measures 10-21 represent the motive of the fugue's episode, using reversed rhythmic patterns and a descending leap of a tritone in place of the original perfect fifth.



A series of elided descending sequences of the subject motive represents the fugue's second set of subject entries in mm.22-24.



A full developmental treatment of the fugue's second episode in mm.26-45 is followed by the most condensed reference to Bach's subject in mm.46-51, representing the fugue's third and final set of entries.



A descending glissando in mm.55-56 closes the Adagio and recalls the descending scale in the final two measures of Bach's fugue.

Within the arch form of the five-movement quartet, the second and fourth movements share the same melodic elements. While the Adagio is tonally structured on D, the fourth movement is structured on G, the dominant and tonic tonal centers in the key of Bach's fugue, the key of G-minor.

The Adagio begins and ends with sections of two-note melodic cells, played by each instrument successively. In mm.1-2, six pitches are played and combine to form the hexachord 6-z3, according to Forte's classification of pitch sets. This hexachord is a synthesis of the transposed opening four notes in Bach's fugue with the opening four notes in the Adagio. This set would contain eight pitches except that two of them are employed by both subsets. Two of these pitches belong only to Bach's fugue subject (subset 4-7; 0,1,4,5), two belong only to Bartók's Adagio (subset 4-1; 0,1,2,3), and two of the pitches are shared by both!

Finally, Bartók's Adagio and Bach's fugue are related by the proportion of their lengths to each other. Bach's fugue has 34 measures and Bartók's Adagio has 56. Since 61.8% of 56 is 34, then Bach's fugue can represent the larger portion of the Golden Section within the total length of Bartók's Adagio. Furthermore, the length of the Adagio can represent the larger portion of the Golden Section when the length of both works are combined. Certainly this is Bartók's mark of recognition, that the length of his paraphrase should create Golden-Mean proportions with Bach's fugue.

It is well-known how frequently musicologists have referred to the Bartók string quartets as descendants of Beethoven. In light of this comparative analysis, perhaps we should investigate further -- they may be the descendants of J.S.Bach!

THE GRUNDGESTALT OF ARNOLD SCHOENBERG:
AN APPLICATION IN THE THIRD MEPHISTO WALTZ OF FRANZ LISZT

Dennis R. Cranford

Composed in 1883, the Third Mephisto Waltz exhibits many characteristics of Liszt's late works, traits such as introspective character, fragmented melodies, and bolder yet more ambiguous harmonies. In analyzing this piece, we have taken the theoretical premise of Arnold Schoenberg, the Grundgestalt, which states that basic ideas--motivic, harmonic, and otherwise--are expressed early in the piece, and later they are developed, determining the material, the harmonic vocabulary, and even the structure of the piece. That the basic ideas are found in the surface, or foreground, of the piece is essential to Schoenberg's concept of Grundgestalt. According to his perspective, it is the detail that serves as predictor of subsequent larger events.

The Grundgestalt, or basic idea, of the Third Mephisto Waltz can be found in the first ten measures. The basic idea is not necessarily based on quartal harmony (as Searle contends), nor is it unrelated to the rest of the piece. From a completely tertian perspective, the basic idea has the following aspects: (1) the ambiguity between two minor chords a fifth apart, a i (D-sharp) and v (A-sharp); (2) the interval of a major ninth, and the incomplete dominant ninth chord (related to both (1) and (2) is the avoidance of the leading tone); (3) the latent half-step relationship (derived from expected melodic resolutions).

(1) The relationship of two minor chords a fifth apart is employed in many forms: ambiguity in Grundgestalt statements (e.g. opening, closing), simple chord alternations, the replacement of a particular chord by chord a fifth away in a subsequent repeated section (e.g. change of V into ii). The leading tone function is obfuscated by avoidance, reharmonization, and unexpected resolution.

(2) The incomplete dominant-ninth and its framing interval, the major ninth, form a basis for many harmonies and melodic patterns. (Quite pervasive is the 7-6 appoggiatura, i.e. 9-8 in first inversion.)

(3) While the common half-step relationship of leading tone to tonic seems to have been consciously avoided, other half-step relationships rise to take its place of prominence. Such relationships include: adjacent chromatic notes/chords, alteration of a pattern by a half-step upon later repetition,

(1) and (3) are certainly integral parts of the whole history of Western music, though their usage in this piece is somewhat novel and unexpected. (2) is perhaps a bit forward-looking, portending the extension of tertian harmony and its use in the color of impressionism.

THE LOGIC OF RICHARD STRAUSS'S TONALITY IN DON QUIXOTE:
SCHOENBERG'S GRUNDGESTALT CLARIFIES,
SCHENKER'S URSATZ OBSCURES

Graham H. Phipps
North Texas State University

This paper seeks to find a useful approach for explaining the harmonic/contrapuntal logic in Richard Strauss's chromatic musical language. An analytical approach is drawn from Schoenberg's presentation in Harmonielehre (1911), stressing three aspects: 1) Chordal successions may all be explained as either strong (downward fifths or thirds), weak (upward fifths or thirds), or superstrong (stepwise progressions--explained by Schoenberg as sums of two strong progressions. 2) All chordal successions are based upon diatonic fundamentals; that is, chromaticism occurs only in thirds, fifths, sevenths, and ninths of chords. Furthermore, fundamentals need not be actually present, as in the case of diminished-seventh and augmented-sixth chords. 3) The tritone may be regarded as an equivalency. This progressive view of Schoenberg is shown to be an updated extension of basic principles that were well known and widely taught by eighteenth- and nineteenth century German and Austrian teachers of harmony and counterpoint, most especially by the central nineteenth-century figure Simon Sechter. Schoenberg's adaptation of this view of harmonic logic is contrasted in the paper with the reactionary views of Heinrich Schenker; specific quotations are cited from the latter's Harmonielehre and Kontrapunkt I.

The paper then applies Schoenberg's principles in a detailed way to the first 71 measures of Strauss's tone poem Don Quixote. Not only does this Schoenbergian approach elucidate the logic of Strauss's immediate surface-level chordal successions in a manner not found elsewhere in music theory literature, but it also helps provide a basis for explaining the macrostructure of the work. The first four-measure phrase of the composition contains three musical gestures that are predictive of the formal structure of the entire tone poem. Application of Schoenberg's Grundgestalt principle helps to clarify the organic properties of this work.

A revised version of this paper now appears under the title, "The Logic of Tonality in Strauss's Don Quixote: A Schoenbergian Evaluation," in 19th-Century Music IX/3 (Spring 1986): 189-205.

"CONSONANCE" IN ELLIOTT CARTER'S SYMPHONY OF THREE ORCHESTRAS
James Bennighof

The main section of Elliott Carter's Symphony of Three Orchestras contains twelve "movements," or distinct kinds of musical material. Rather than appearing seriatim, these movements (four in each orchestra) overlap and recur in what Carter has called a "continually shifting web of sound;" a "kaleidoscope of musical themes." Each movement is distinguished from the others by specific characteristics of pitch, tempo, rhythm, timbre, register, and dynamics; this paper focuses on one of the ways in which Carter uses pitch structure toward this end.

Carter saturates each movement with three-note sets belonging to a single set class (collection of pitch-class sets related by transposition or inversion). There are twelve three-note set classes, and each is assigned to one of his movements. Because each three-note set class has a unique interval content, a distinct combination of intervals is established as the norm for each movement; this can be viewed as a kind of "consonance" within the movement.

In the paper I discuss ways of conceptualizing and depicting the way that the sets in each set class interact within the aggregate, drawing attention to variations in the ways in which they overlap and divide the twelve pitch classes. I then show how Carter uses each set class in a movement, observing ways that interactive characteristics of individual set classes can influence his use, as well as the varied textures through which he projects "consonant" sets. Several excerpts from the piece are played, demonstrating this variety as well as the extent to which the intervallic content of each set distinguishes its movement from others.

The paper concludes with the observation that, while this technique is only one aspect of pitch construction in this piece, it provides a fertile model for composition. If each of several musical "characters" is identified by a particular set class, the characters can then relate to one another in a variety of formal contexts. For example, one might use them in an atonal piece as key areas might be used in tonal music. Or, in more tonal contexts, the two might be combined: schemes based on tonality could interact with schemes based on the interplay of set-class-defined characters. These and other possibilities suggest the usefulness of this technique outside Carter's particular formal concept.

TWELVE-TONE POLARITY IN LATE WORKS OF LUIGI DALLAPICCOLA

David L. Mancini

In an essay first published in 1951, Luigi Dallapiccola used the term "polarity" to refer to certain relationships between pitches in a twelve-tone row. This polarity, according to Dallapiccola, is really a power of attraction that supplants the dominant-tonic relation of tonal music and can change from one work to another. He mentions two hypothetical cases in which a polarity can exist between nonadjacent pitches of a row in order to establish that row's "characteristic interval."

The present study demonstrates that Dallapiccola's concept of polarity can extend beyond the notion of a characteristic interval to a pitch-class set that has priority in a given context. Using examples from several of Dallapiccola's works composed after 1960--works that have previously received little attention--the study concludes that polarity in Dallapiccola's late works results from several procedures: (1) the association of nonadjacent pitch classes of a row, (2) the contextual emphasis of inversional axes, and (3) the invariant segments shared by two or more row forms.

MELODIC RESOLUTION: A ROMANTIC SIGNIFICANCE
Joán C. Groom-Thornton

An acknowledged part of Romantic Era music theory is the composers' use of chromatic "mediant" relationships between key areas, and in chord progressions. These relationships are often not well clarified by our conventional system of Roman numeral harmonic analysis, although they occur in otherwise quite functional situations which can be addressed and understood by symbolic analysis.

The commonly accepted definition of this general term includes chords or keys which are remotely related in accidentals, and which lie major or minor thirds apart. But certain of the relationships within this broad definition seem to be more favored in compositional usage than others. What, if any, are the patterns that distinguish them, and why might certain ones be preferred?

The examples considered cover a broad range of Romantic musical literature, with specific citations occurring as early as Beethoven's Opus 7, to works by Schubert, Schumann, Chopin and Wolf. A strong preference for major triads a major third apart, and dominant seventh chords related by minor in thirds (or tritones) occurs across the spectrum of composers of this era.

On closer inspection, the musical context of these preferences often shows a definite pattern of melodic usage in progressing from one chord to the other of these specific pairs. In most contexts (especially within a phrase), two voices move by half step in contrary motion while the other voice has a common tone. I shall refer to this as the "mediant melodic resolution." This voice-leading pattern is a direct quotation of the "V7 to I" chord progression. And, perhaps, this is a clue to its popularity--while, although the harmonic progression is chromatically colorful or even unique in an otherwise functional context, the employment of such a well-developed melodic formula gives a strong sense of continuity from earlier practices and "sounds" quite normal.

Out of curiosity, one might wonder within what other interval contexts this "melodic" relationship could exist. Comparisons will show that it cannot exist in any situation other than the conventional diatonic chord progression mentioned in the preceding paragraph and the specific chromatic third situations already defined.

Therefore, many composers' preferences in using these unusual progressions to broaden their harmonic palettes seem to be rooted in melodic practices already in use for over a hundred years.

DATA ZONES: OBSERVING STRUCTURAL PROCESSES

Thomas Clark

The language of a contemporary piece, its vocabulary, syntax, coherence, is intrinsic to its unique contents. This can be said, of course, of any art work, that it creates its own language. Much contemporary music, however, seems particularly unwilling to submit to stylistic models of expectation, preferring to reveal its unique nature only phenomenologically through the observable data of its events. (This could be thought of as an extension of Schoenberg's *Grundgestalt* concept.)

This self-modeled nature is evident especially with respect to form. Form is processes of change. Traditional segmental models of form limit our understanding of those processes by assuming compartmentalized limits on change.

The challenge, then, is actually an opportunity -- to recognize in a piece the richness of surface variance supported by underlying trends, a hierarchical manifestation of form as process.

Analytic examples are drawn from a work strongly based on processes of pattern formation, with a focus on rhythmic and textural materials and their metamorphosis -- Texas composer Larry Austin's SONATA CONCERTANTE, a duo for piano and computer-synthesized piano. That choice offered a unique opportunity to examine a composer's thoughts and methods closely, since he was willing to reveal his processes. Also a computer-assisted composition, it offered highly detailed data about its pattern structures. But with that detail comes the challenging necessity of finding concepts to interpret so much information in perceptually meaningful ways. (As a first step in this quest, most of the musical data considered is presented in graphic formats.)

Another interesting feature of the work is its compositional use of fractal patterns. Fractals are a mathematical way of understanding the essence of natural patterns such as tree branchings or coastal contours, patterns with the paradox of consistency in diversity. SONATA CONCERTANTE uses certain pattern properties of strings of words, actually a sort of poem about form analyzed and transformed into musical patterns.

The mathematician who pioneered the study of fractal patterns, Benoit Mandelbrot, also pointed out that the degree of detail in data can profoundly affect its interpretation and ultimate meaning. What this means for a data-oriented analysis is that "zones of data" must be established. Such determinations of how closely or distantly, how slowly or rapidly we count, group, and measure events will be critical to the kind of observations that can be made. The dimensions of these data zones, then, establish hierarchical levels of observation for tracing the processes of change that are a musical work's form.